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THE CLAIMS:

1. An isolated, synthetic or recombinant ρ -conotoxin peptide having selective α_1 -adrenoceptor antagonist activity.

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2. A ρ -conotoxin peptide according to claim 1 having the sequence:

FNWRCCLIPACRRNHKKFC

SEQ ID NO. 1

or such a sequence which has undergone one or more amino acid deletions, additions, substitutions or side chain modifications.

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3. A ρ -conotoxin peptide according to claim 2 which is ρ -TIA.

4. A ρ -conotoxin peptide according to claim 1 having no or negligible activity at the neuronal or muscle subtype of nicotinic ACh receptor.

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5. A ρ -conotoxin according to claim 1 having selectivity for one α_1 -subtype over the other subtypes.

6. A ρ -conotoxin peptide according to claim 1 having four cysteine residues and two disulphide bonds.

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7. A ρ -conotoxin peptide according to claim 6 wherein the disulphide bond connectivity is A-C/B-D, where A, B, C and D refer to the first, second, third and fourth cysteine residues respectively.

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8. Use of a ρ -conotoxin peptide according to claim 1 in a receptor binding assay to test the activity of a molecule as an antagonist of α_1 -adrenoceptor activity.

9. An isolated nucleic acid molecule comprising a sequence of nucleotides encoding a complementary to a sequence encoding a ρ -conotoxin peptide according to any one of claims 1 to 7.

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10. A nucleic acid probe comprising a sequence of nucleotides encoding all or part of a ρ -conotoxin peptide according to claim 1.

11. A monoclonal or polyclonal antibody to a ρ -conotoxin peptide according to claim 1.

12. A genetic construct comprising a vector portion and a nucleic acid capable of encoding a ρ -conotoxin peptide according to claim 1.

13. A ρ -conotoxin peptide according to claim 1 which is a chimeric peptide comprising
10 a segment or sequence of a naturally occurring ρ -conotoxin peptide and a segment or sequence of another biologically active peptide or protein, such that the resultant ρ -conotoxin peptide possesses an activity associated with said other peptide or protein.

14. A method for the treatment or prophylaxis of urinary or cardiovascular conditions
15 or diseases or mood disorders, or for the treatment or control of pain or inflammation including the step of administering to a mammal an effective amount of an isolated, synthetic or recombinant ρ -conotoxin peptide having selective α_1 -adrenoceptor antagonist activity.

15. A method according to claim 14 wherein the disease or condition of the urinary
20 system is prostatic hyperplasia or a related disorder.

16. A method according to claim 14 wherein the cardiovascular disease or condition is an arrhythmia, hypertension or coronary heart failure.

25 17. A method according to claim 14 wherein the mood disorder is a craving.

18. A method according to claim 14 wherein the pain is chronic pain, neuropathic pain or inflammatory pain.

30 19. A composition comprising an isolated, synthetic or recombinant ρ -conotoxin peptide having selective α_1 -adrenoceptor antagonist activity, and a pharmaceutically acceptable

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carrier or diluent.

20. A composition according to claim 19 which is a pharmaceutical composition.

5 21. Use of an isolated, synthetic or recombinant ρ -conotoxin peptide having selective α_1 -adrenoceptor antagonist activity in the manufacture of a medicament for the treatment or prophylaxis of urinary or cardiovascular conditions or diseases, or mood disorders, or for the treatment or control of pain or inflammation.

10 22. Use of a ρ -conotoxin peptide according to claim 1 as an antagonist of α_1 -adrenoceptors.

23. A method for the treatment or prophylaxis of diseases or conditions in respect of which selective antagonism of α_1 -adrenoceptors is associated with effective treatment or
15 prophylaxis, including the step of administering an effective amount of a ρ -conotoxin peptide according to claim 1.

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